From: Jon Christensen
To: Larsen, John
Date: 8/27/2003 1:59:54 PM
Subject: Specification 45065 - Questions and Answers

Please find attached answers to questions asked by the bidders on the Induced Draft Fan Variable Frequency Drives.

1. What should be the basis for our harmonic calculations? IEEE 519 as indicated in Section F2 or Section F7 para 2

Harmonic calculations should be based on IEEE 519 as indicated in Section F2.

2. The plant single lines do not have sufficient information to perform our harmonic analysis. The size and impedance are needed for the main plant auxiliary transformers which feed the drives.

The auxiliary transformers supplying the 6.9 kV buses, which feed the variable frequency drive transformers, are rated:
36/48/60 MVA, 26 kV-7.2 kV-7.2 kV, Z=12.1%. There are two secondary windings. Each winding supplies one 6.9 kV bus.

3. Is the power factor to be .95 at full load per Section F2 or .95 from 30 - 100% speed as indicated in F7 para 2f?

The power factor shall be .95 at full load per Section F2. Each bidder shall provide power factor information for 30 to 100 % full speed.

4. Section F7 para 1, is the indoor ambient temperature range -10 to 50 degrees C?

The indoor temperature range is 0 to 50 C. The outdoor temperature range is -35 to 50 C.

5. What is the minimal short circuit capacity of the 6.9 kV bus? E.g. what is the power and impedance of the unit aux. transformer? This info is not on the provided drawings.

See question 2.

7. What are the subtransient reactances of the existing Westinghouse motors? This info is not on the provided drawings.

Later

8. A drawing for the mezzanine foundation with dimensions.

Drawing 1BSB-S7325 is attached.

9. A drawing for the mezzanine cable/conduit locations.

See question 8.

10. A readable copy of the drive outline drawing # 3097D30

The drawing has been redrawn in AutoCAD file format. The new drawing is attached.